

**Amendments to the claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

1. (Currently Amended) An immortalized human undifferentiated cardiomyocyte cell line, wherein the cell line comprises a replicable vector that expresses SV-40 large T antigen, and wherein the cell line is produced by a method comprising the step of fusing a post-mitotic primary non-immortalized human cardiomyocyte obtained from adult human heart tissue with a human fibroblast, the fibroblast
  - (a) having been treated with ethidium bromide;
  - (b) comprising a replicable vector expressing SV40 large T antigen which confers immortality on a cell comprising same; and
  - (c) being free of mitochondrial DNA.
2. (Cancelled)
3. (Currently Amended) An immortalized human undifferentiated cardiomyocyte cell line, The ~~cell line of claim 1,~~ wherein the cardiomyocyte

cell line is designated AC16 (ATCC Designation No. PTA-1500).

4. (Currently Amended) An immortalized human undifferentiated cardiomyocyte cell line, ~~The cell line of claim 1,~~ wherein the cardiomyocyte cell line is designated AC10 (ATCC Designation No. PTA-1501).

5. (Currently Amended) An immortalized human undifferentiated cardiomyocyte cell line, ~~The cell line of claim 1,~~ wherein the cardiomyocyte cell line is designated RL14 (ATCC Designation No. PTA-1499).

6. (Cancelled)

7. (Cancelled)

8. (Previously Presented) A method for preparing a human undifferentiated immortalized cell line derived from a post-mitotic primary cell culture which comprises:

(a) providing a cell culture of human primary post-mitotic cells;

(b) providing a human fibroblast cell line which

(i) has been transfected with a replicable nucleic acid vector

expressing SV40 large T antigen  
which immortalizes the  
fibroblast cell line, and

(ii) has been depleted of its  
mitochondrial DNA;

(c) co-culturing the human fibroblast  
cell line of step (b) with the cell  
culture of step (a) under appropriate  
conditions so that cell fusion  
occurs;

(d) growing the fused cells from step (c)  
in a selection medium which selects  
for cells with mitochondrial DNA; and

(e) selecting cells from step (d) which

(i) contain a replicable vector that  
expresses SV-40 large T antigen,  
and

(ii) express one or more genes  
specifically expressed by the  
primary post-mitotic cell of  
step (a),

so as to prepare the human  
immortalized cell line.

9. (Original) The method of claim 8, wherein the cell culture of human primary non-proliferating cells in step (a) is a cell culture of primary human cardiac cells, primary human skeletal myoblast cells, human neuronal cells, or primary human osteoblast cells.
10. (Cancelled)
11. (Cancelled)
12. (Original) The method of claim 8, wherein the appropriate conditions for cell fusion in step (c) comprise incubation for about one minute in a 50% PEG solution.
- 13.-19. (Cancelled)